

Application Number: 10/595,524

Amendment dated: March 15, 2010

Reply to Office Action of: November 13, 2009

Amendments to the Specification:

Please replace the following paragraphs as indicated below:

[0001] The present invention relates to plastic boards for the construction industry, and more particularly to coated~~such boards using a novel coating.~~

[0003] The boards may be any type of board used in the construction industry. For example, one can use the board known as Light Building Board, made of plastic foam such as XPS (extruded polystyrene) or EPBS (expanded polystyrene beads). Other boards may be made of MDF (medium density fiberboard) or other materials.

[0008] The board having the above detailed structure is light weight and has good thermal insulating properties, together with improved mechanical strength and machinability~~mechinability~~.

[0011] According to one aspect of the present invention, there is provided a plastic board with means for achieving improved adherence properties to other parts used in the construction industry. The present plastic board comprises a base board; a coating layer on the base board; and a mesh disposed within said coating layer, wherein the coating layer comprises dome-like protrusions whose perimeter is defined by the mesh configuration.

[0013] Accordingly, a new board structure has been devised, which has a domed shape – the board's external surface ~~is made of~~comprising tiny domes. Such domes achieve better bonding to other construction parts, for example including tiles, plaster, etc. Furthermore, better bonding of the board itself to walls, a bathtub, etc. may be achieved.

[0015] According to another aspect of the present invention, there is provided a method of producing a construction board, comprising: applying a layer of coating over a board to be

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used in the construction industry; laying a mesh over the board, within the coating; and moving one or more spreading knives over the coating layer thus formed. A new method for manufacturing Light Building Boards has been devised as well.

[0017] Fig. 1 illustrates the structure of a ~~L~~ight ~~B~~uilding ~~B~~oard (prior art).

[0018] Fig. 2 details a cross-sectional view of a ~~L~~ight ~~B~~uilding ~~B~~oard (prior art).

[0019] Fig. 3 ~~details~~is a cross-sectional view of an embodiment of a novel ~~L~~ight ~~B~~uilding ~~B~~oard of the present invention.

[0019A] Fig. 4 illustrates an embodiment of a method of producing the present light building board.

[0021] **Fig. 1** illustrates the structure of a segment of a prior art ~~L~~ight ~~B~~uilding ~~B~~oard **10** comprising a foam board **12** with two of its sides coated with a thin layer **13** of a plastic adhesive or cement ~~as in prior art~~. A fiberglass or plastic mesh **14** is embedded in the coating layer **13**. This mesh **14** improves the mechanical properties of the board.

[0022] **Fig. 2** ~~details~~shows a cross-sectional view of a segment **10** of same prior art ~~L~~ight ~~B~~uilding ~~B~~oard ~~of prior art~~. The coating **13** is thin, thus achieving a generally flat external surface **40**. Such a surface makes it more difficult to attach other construction part to the board.

[0024] **Fig. 3** ~~shows~~details a cross-sectional view of an embodiment of the present novel ~~L~~ight ~~B~~uilding ~~B~~oard **50**.

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[0027] The materials of the coating may include a mixture of adhesives, cement, and inert material for flow enhancement. Flame retardant materials may be included as well where necessary.

[0028] The coating is preferably made thicker, between 1 mm and 5 mm than in prior art coatings, thus achieving improved performance.

[0031] a. Applying a layer of coating over the board to be used in the construction industry, step 60.

[0032] b. Laying a fiberglass mesh over the board, within the coating, step 62.

[0033] c. Optionally Applying a second layer of coating, step 64.

[0034] d. Moving one or more spreading knives over the surface (coating layer) thus formed, step 66.

[0035] An external surface including dome-like protuberances is thus manufactured. ~~End of method.~~